Chemistry 11
Classification of Matter
Worksheet

Directions: Answer in the space provided. Be sure to read the question carefully.

1. Define matter

2. What is difference between a mixture and a pure substance? Give an example of each.

3. How can you tell and element apart from a compound?

4. What is an ion?

5. Complete the following sentences by filling in the appropriate word from the list below.

   gas   plasma   physical
   liquid   matter   chemical
   solid   energy   Simms

   1. ____________________ is anything that has mass and volume.

   2. The two states of matter that occupy a definite volume are _____________ and _________________.

   3. _________________ changes alter the identity of a substance, whereas _________________ changes do not.

   4. Mr. ____________________ is amazing. The hair on his head is ridiculously thick and luscious.
6. Identify whether each of the following change is a physical change or a chemical change. Write “P” for physical and “C” for chemical

- ______ water boiling
- ______ butter melting
- ______ wood rotting
- ______ leaves changing colour
- ______ Milk sours
- ______ Evaporation
- ______ iron rusting
- ______ alcohol evaporating
- ______ baking a cake
- ______ glass breaking
- ______ mowing the lawn
- ______ Food is digested

7. What is the relationship between the kinetic energy (KE) of molecules and their physical state?

8. How can you determine whether a change in matter is physical or chemical?

9. Classify each of the following as an element (e), a compound (c) or a mixture (m).

- ______ Gold
- ______ Water
- ______ Seawater
- ______ Sugar
- ______ A chocolate sundae
- ______ Air
- ______ Carbon Dioxide
- ______ Silver
- ______ Ice
- ______ A cheeseburger

10. Classify each of the following as an intensive (I) or extensive (E) property

- ______ Mass
- ______ Density
- ______ Melting Point
- ______ Colour
- ______ Volume
- ______ Length